

Title (en)
IMPINGEMENT COOLED WALL ARRANGEMENT

Title (de)
PRALLGEKÜHLTE WANDANORDNUNG

Title (fr)
AGENCEMENT DE PAROI REFROIDIE PAR IMPACT

Publication
EP 3205937 B1 20210331 (EN)

Application
EP 16154862 A 20160209

Priority
EP 16154862 A 20160209

Abstract (en)
[origin: EP3205937A1] The present disclosure refers to an impingement cooled wall arrangement (12) comprising: an impingement sleeve (10) and a wall (7) exposed to a hot gas (19) during operation, wherein the impingement sleeve (10) is at least partly disposed in a plenum (20), and spaced at a distance from the wall (7) to form a cooling flow path (15) between the wall (7) and the impingement sleeve (10) such that compressed gas (11) injected from the plenum (20) through the plurality of apertures (13) in the cooling sleeve during operation impinges on the wall (7) and flows as a cross flow (16) towards an exit at a downstream end (28) of the cooling flow path (15); and a plurality of turbulators (21) having a leading edge (25) arranged on the wall (7), characterised in that the center of at least one of the apertures (13) is aligned along the longitudinal axis (29) with the leading edge (25) of at least one of the turbulators (21). Besides the impingement cooled wall arrangement (12) a gas turbine (1) with such an arrangement as well as a method for cooling a duct wall are disclosed.

IPC 8 full level
F23R 3/00 (2006.01); **F23R 3/06** (2006.01)

CPC (source: CN EP KR US)
F01D 25/12 (2013.01 - KR); **F02C 7/12** (2013.01 - KR); **F02C 7/18** (2013.01 - US); **F23R 3/002** (2013.01 - CN EP US);
F23R 3/06 (2013.01 - EP US); **F05D 2260/20** (2013.01 - KR); **F05D 2260/201** (2013.01 - US); **F23R 2900/03044** (2013.01 - EP US);
F23R 2900/03045 (2013.01 - EP US)

Citation (examination)
US 2015361889 A1 20151217 - MAURER MICHAEL THOMAS [DE], et al

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 3205937 A1 20170816; EP 3205937 B1 20210331; CN 107044654 A 20170815; CN 107044654 B 20210525; JP 2017150482 A 20170831;
KR 20170094514 A 20170818; US 2017227222 A1 20170810

DOCDB simple family (application)
EP 16154862 A 20160209; CN 201710071359 A 20170209; JP 2017022257 A 20170209; KR 20170017393 A 20170208;
US 201715428695 A 20170209